

## CLAIMS

Sub B1  
1. A multilayer polymer film including two or more layers, which, at a first sealing temperature, forms a peelable bond and, at a second higher sealing temperature, forms a permanent bond, characterized in that one of the two outer layers has a matrix phase polymer system, whereby the matrix polymer is a polyethylene homopolymer, a polyethylene copolymer, a polypropylene homopolymer, or a polypropylene copolymer and the phase polymer is a styrene ethylene/butylene styrene triblock polymer (SEBS) with a styrene ethylene/butylene diblock component (SEB), a styrene ethylene/propylene styrene triblock polymer (SEPS), a styrene butadiene styrene triblock polymer (SBS), and/or a styrene isoprene styrene triblock polymer (SIS), and/or ethylene  $\alpha$ -olefin copolymer.

SN D2  
2. The multilayer film according to Claim 1, characterized in that the multilayer film is a co-extruded multilayer film.

A SN D3  
3. The multilayer film according to Claim 1 ~~or 2~~, characterized in that the multilayer film has two to seven layers.

A A Sub B2  
claim 4.1  
~~claims 1 through 3~~  
4. The multilayer film according to ~~one of~~ ~~claims 1 through 3~~, characterized in that the phase polymer may also have a processing aid.

A A SN D5  
claim 5.  
~~claims 1 through 4~~  
5. The multilayer film according to ~~one of~~ ~~claims 1 through 4~~, characterized in that the proportion of the phase polymer is in the range from 1 to 40 wt.-%, based on the matrix-phase polymer system.

A  
 A  
 Sub C2  
 1 claim 16. The multilayer film according to ~~one of~~  
 2 ~~Claims 1 through 5~~, characterized in that the multilayer  
 3 film has a gas barrier for oxygen and carbon dioxide as  
 4 well as a water vapor barrier layer.

Sub B3  
 1 7. A multichamber medical bag (1) made of  
 2 a polymer material for preparation of medical mixed  
 3 solutions, which has at least two chambers (8 and 9),  
 4 which are separated from each other by a sealed  
 5 separation zone (7) to be opened and are sealed in the  
 6 outer border zone (2, 3), whereby in the seam of the  
 7 outer border zone at least one tube (4) is provided in  
 8 at least one chamber, characterized in that it is  
 9 fabricated from a multilayer polymer film according to  
 10 Claims 1 through 6.

Sub C4  
 1 8. The multichamber bag according to Claim  
 2 7, characterized in that the seam is separable in the  
 3 separation zone (7) with a force which is in the range  
 4 from 5 to 20 N and the seam in the outer border zone (2,  
 5 3) is inseparable.

A  
 A  
 1 claim 9.7 The multichamber bag according to ~~one~~  
 2 ~~of Claims 7 through 8~~, characterized in that it is heat  
 3 sterilizable.

Sub B4  
 1 10. The multichamber bag according to one  
 2 of Claims 7 through 9, characterized in that in addition  
 3 to the discharge tube (4) each chamber to be filled also  
 4 has at least one filling tube (5, 6), which is disposed  
 5 in the seam of the outer border zone (2, 3).

A  
 A  
 Sub C5  
 1 claim 11. The multichamber bag according to ~~one~~  
 2 ~~of the preceding claims~~, characterized in that the outer  
 3 wall in the chamber separation zone is provided with at

1 least one tear tab (10), preferably with two tear tabs  
2 (10).

A 1 12. Use of a multichamber medical bag  
2 according to <sup>claim 7</sup> ~~one of claims 7 through 11~~ for preparation  
3 of mixed solutions for dialysis, infusion, or nutrition.

Add  
B5

add  
D10